## ABSTRACT OF THE DISCLOSURE

A lamellar crystalline organic polymer containing acidic groups and/or ammonium salt thereof, such as ammonium salt of polymuconic acid, is mixed with a substance containing a metal ion such as alkali metal ion, to prepare a metal ion-containing polymer having a structure in which the metal ion is intercalated between the layers of the lamellar crystalline organic polymer having acidic groups. Subsequently, metal ion exchange reaction is conducted if necessary. Thereafter, the metal ion is reduced to produce fine metal particles. Thus, a crystalline organic polymer in which fine metal particles are dispersed in a crystalline organic polymeris obtained.